



MT682 2D Scan Engine, Integration Guide, V0.6

MT682

2D Scan Engine

Integration Guide



Version 0.6

DATE: 2021/09/07



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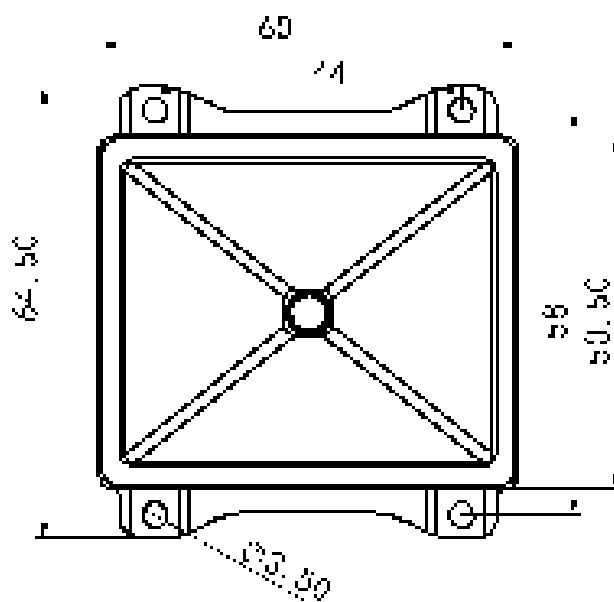


1. SPECIFICATIONS

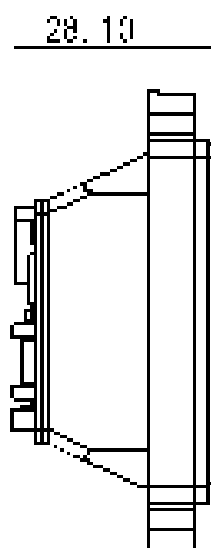
Light Source	white LED
Sensor	640 x 480 pixels
Field of View	Horizontal 62° Vertical 48°
Scan Angle	Pitch Angle $\pm 55^\circ$ Skew Angle $\pm 55^\circ$ Roll Angle 360°
Print Contrast Ratio	20%
Typical Depth of Field	1 ~ 10cm
Dimension	L64.5 x W60 x H28 mm
Connector	12pin ZIF Connector (0.5mm) 4pin Wafer Connector (1.25mm) x 2
Operation Voltage	5VDC $\pm 5\%$
Working Current	100 mA
Interface	USB
	TTL (3.3V)
	RS232
Operating Temperature	0°C ~ 50°C
Storage Temperature	-25°C ~ 85°C
Humidity	5% ~ 95%RH (Non-condensing)
Drop Durability	1M
Ambient Light	100,000 Lux (Sunlight)
1D Symbolologies	UPC-A/ UPC-E EAN-8/ EAN-13 Codabar Code 39 / Full ASCII Code 39 Code 93 Code 128 GS1-128 ITF-25
2D Symbolologies	QR Code PDF417 Data Matrix

2. MECHANICAL DIMENSIONS

(Unit = mm)

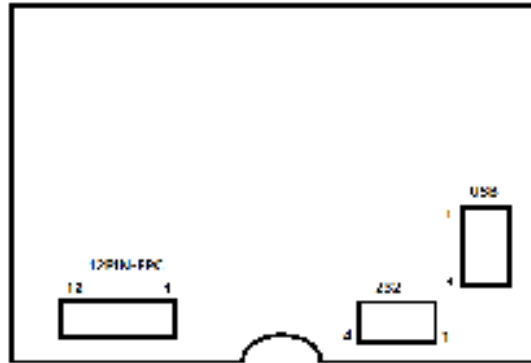


Front view



Side view

3. ELECTRIC INTERFACE



3-1. 12-pin ZIF Connector (0.5mm, bottom contact)

Pin#	Signal	Description	I/O
1	nTRIG	Trigger input	I
2	nRESET	Reset input	I
3	LED	Good read LED indicator	O
4	Buzz	Good read buzzer indicator	O
5	PWRDWN	Reserved	-
6	nRTS	TTL request to send	O
7	nCTS/USB_D+	TTL clear to send/ USB D+	I
8	TXD	TTL send	O
9	RXD/USB_D-	TTL receive/USB D-	I
10	GND	Ground	-
11	VIN	Power supply	-
12	232INV	Reserved	-

***Note:** LED and Buzz have not enough capacity to drive LED/buzzer directly. A supporting LED/buzzer driver circuit is required.



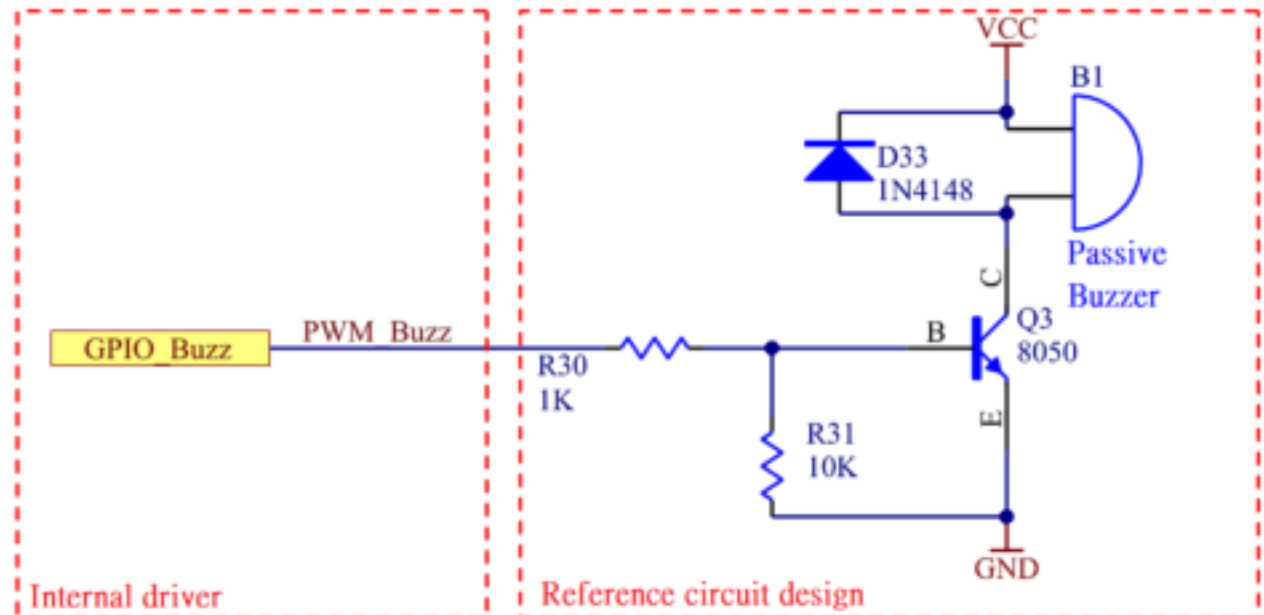
3-2. 4-pin Wafer Connector (1.5mm, serial interface)

Pin#	Signal	Description	I/O
1	VIN	Power supply	-
2	TTL232-RXD/ RS232-RXD	TTL232/RS232 receive	I
3	TTL232-TXD/ RS232-TXD	TTL232/RS232 send	O
4	GND	Ground	-

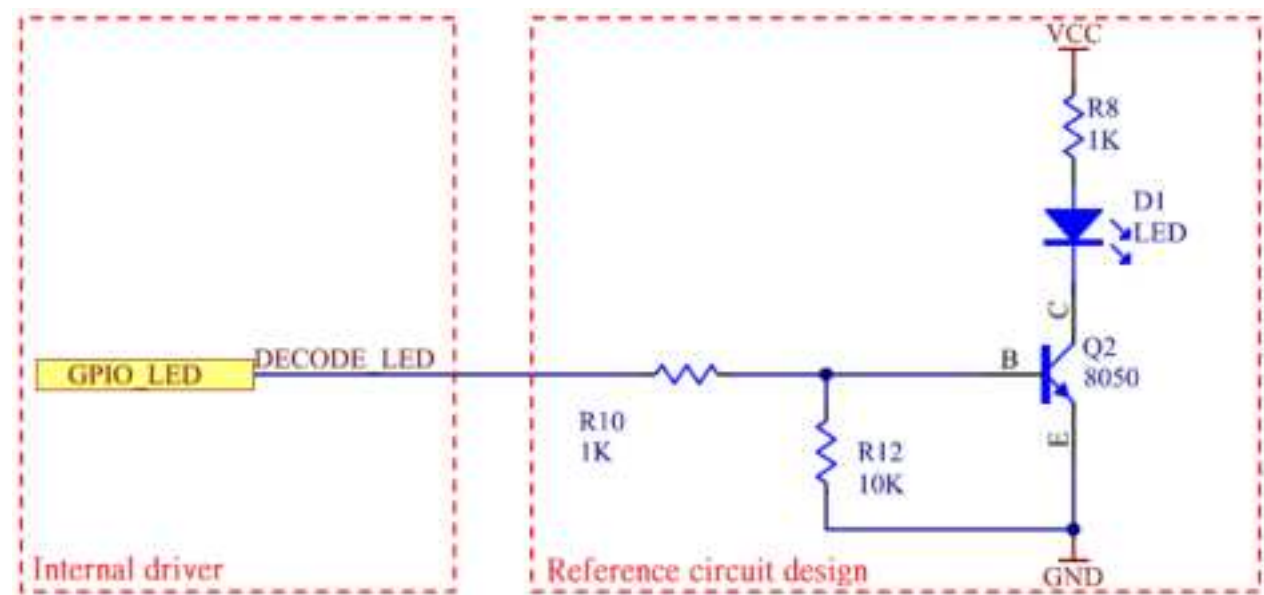
3-3. 4-pin Wafer Connector (1.5mm, USB interface)

Pin#	Signal	Description	I/O
1	VIN	Power supply	-
2	USB_D-	USB D-	I/O
3	USB_D+	USB D+	I/O
4	GND	Ground	-

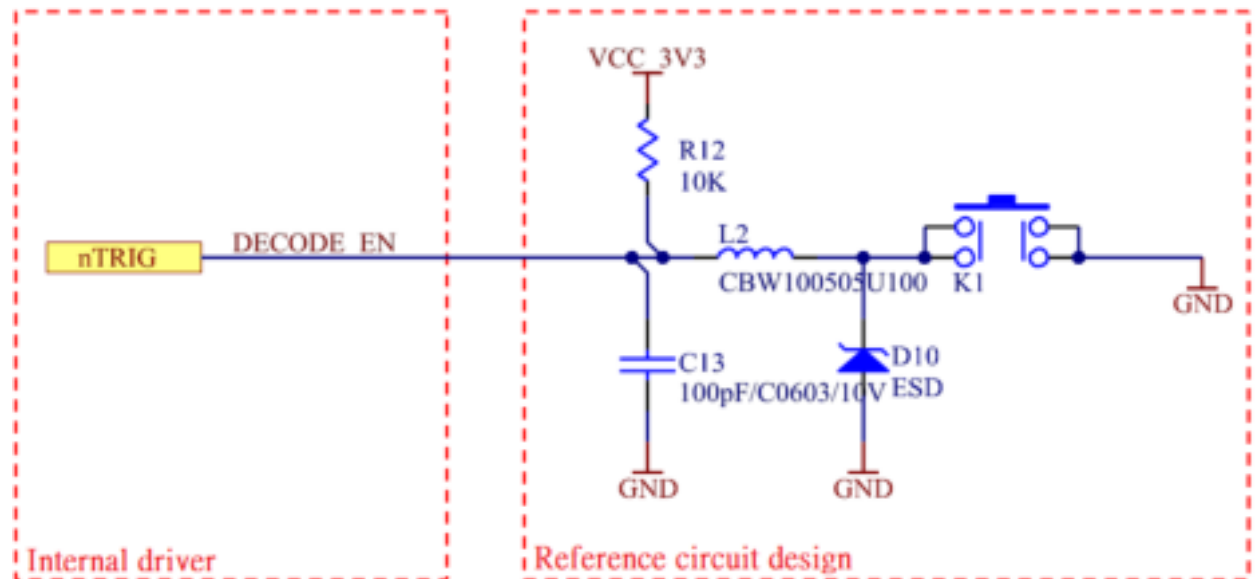
Reference design for external buzzer driver circuit



Reference design for external LED driver circuit



Reference design for external trigger driver circuit





4. VERSION HISTORY

Rev.	Date	Description	Issued
0.1	2020.10.14	Preliminary Draft Release	Shaw
0.2	2020.10.27	Revised Model No. to MT682	Shaw
0.3	2020.11.02	Updated Product Picture	Shaw
0.4	2020.11.18	Revised Product Name	Shaw
0.5	2020.12.14	Added Drop Durability	Shaw
0.6	2021.09.07	Updated Field of View	Shaw

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